

WhisperPower Touch Display

WP 5.0 inch, WP 7.0 inch and WP 9.7 inch

User Manual

Revision 1.2



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1. Introduction

Congratulations on your purchase of the WhisperPower Touch Display, displaying WPC inverter/battery charger information, precise battery monitoring and/or WhisperPower Generator information. The WhisperPower Touch Display is available in 3 sizes: a 5 inch WP 5.0 Touch (order number 40280100), the 7 inch WP 7.0 Touch (order number 40280101) and the 9.7 inch WP 10 Touch (order number 40280102). WhisperPower has designed and built this Touch Display to the highest standards for years of dependable and accurate service. Inside the Touch panel, a WPCI 2000 interface has been integrated. This WhisperPower Touch Display **will only operate with a RS232-i interface (order number 60201084)** which is connected to a WPC WhisperPower Centre inverter/charger, or connected to a DDC connection of a WhisperPower Generator. Please read this manual carefully and follow these instructions for installation, configuration, and usage of the WhisperPower Touch panel in order to ensure optimal performance.

Functionality:

PART NUMBER	DESCRIPTON	WPC	SQ SERIE	SC SERIE	GV SERIE
40280100	TOUCHPANEL 5"	Full	Limited functionality, no Voltage , Current and Fequency setting. Only in combination with WPC		
40280101	TOUCHPANEL 7"	Full			
40280102	TOUCHPANEL 10"	Full			

1.2 Firmware Revision

This manual corresponds to ycXXarm firmware revision 1.0.

1.3 WPCI2000 Features (WhisperPower Touch display)

The WhisperPower Touch 5.0, Touch 7.0 and Touch 10 have the following features.

- Showing of WPC inverter/ battery charger information
- Showing of key Generator information
- Setting of WPC (On/Off/Charge only and Current limit) by user
- Setting of Generator (Start/Stop) by user
- Setting of WPC parameters by qualified installer
- Setting of BSP parameters by qualified installer
- Setting of Generator parameters by qualified installer

1.4 Quick Install

Installing the WhisperPower wpXXarm Touch Display involves the following steps. Please refer to the individual sections for additional details.

1. Unpack the Box (Section 2.2)
3. Mount the Touch Panel (Section 2.3)
4. Connect the Touch panel (Section 2.5)

2. Installation

2.2 Unpacking the Box

When unpacking the box containing the WhisperPower Touch Display, you should find the following items:

- 1** - The type of WhisperPower Touch Display you have ordered
- 1** - A User's Manual
- 1** - A RS232 Cable 1:1 connection to the WPC-RS232-I
- 1** - RJ45 Converter cable/connector for generator cable
- 4** - screws with clip

If any of these items are missing or damaged, please contact WhisperPower.

2.3 Mounting the WhisperPower Touch Display

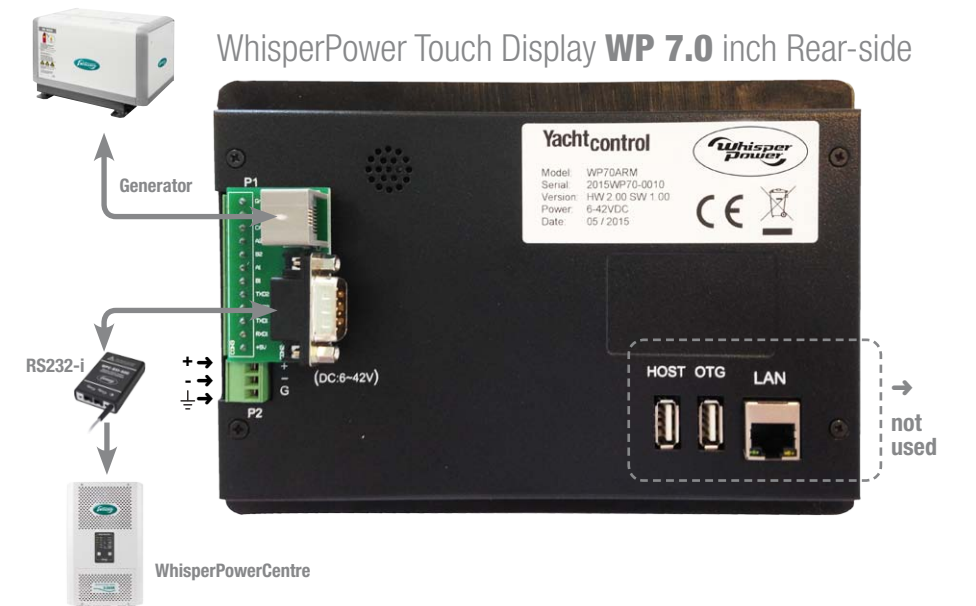
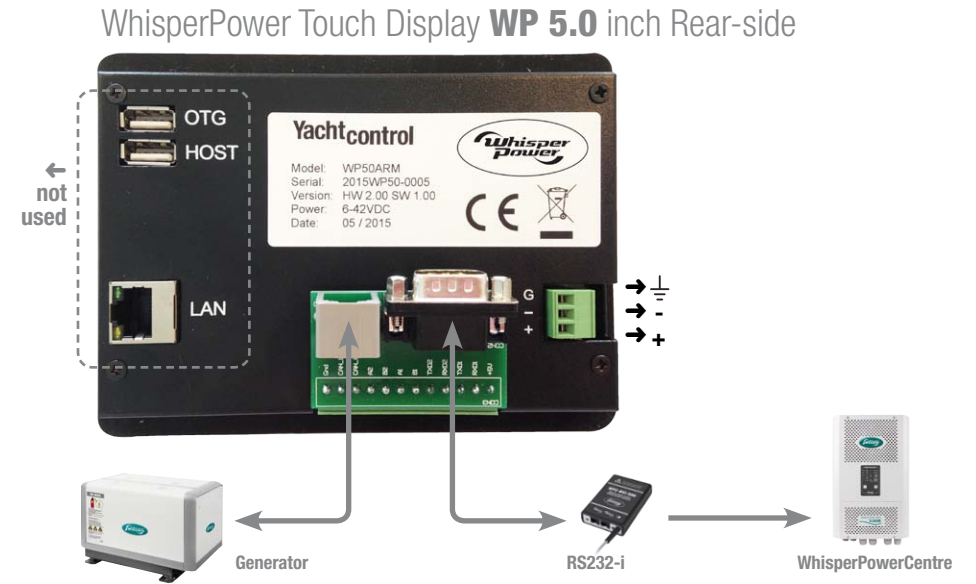
Install the Touch panel in vessel, vehicle or land based object. Take special care of the micro-SD card on the side of the display. If the mounting hole is too narrow you could damage the micro-SD card. Fix the panel with the 4 screws and clips.

2.4 Connecting the WhisperPower Touch Display

1. Remove the green 3 pole connector from rear side of the panel.
2. Connect the DC (plus and minus) and earth connection as shown on the rear side of the panel.
3. Plug in again the 3 pole connector
4. Based on your situation connect the panel with the RS232 cable to the RS232-i serial interface and connect the RS232-i serial interface to the WPC and/or connect the panel with the RS485 cable to the generator as per schematic below

The WhisperPower Touch Displays provide a connection to a WPC-RS232-i serial interface and a RS485 connection for the generator; these connections can be found on the back of the device. The device is powered by an external power source ranging from 6-42V DC.

Warning! Do not use the starter battery of the generator as power source for the Touch Display.



2.5 Checking Connections

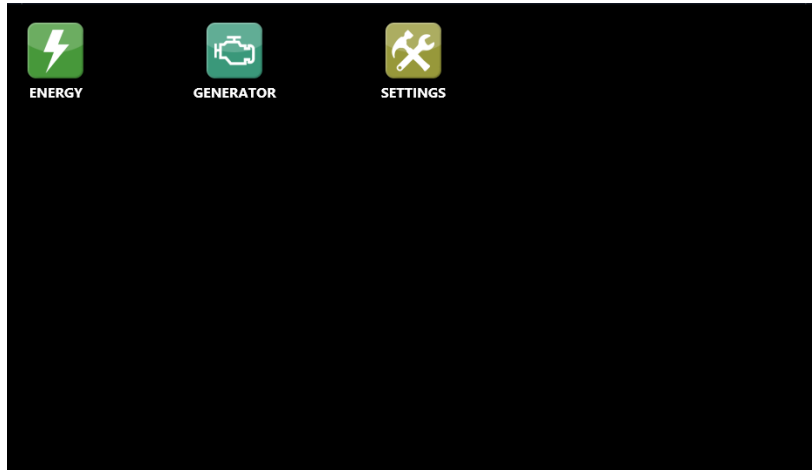
Once the connection to the WPC-RS232-i interface and the connection to the generator have been completed, power can be supplied to the WhisperPower Touch Display. Check to see that information is being properly transmitted by observing the ENERGY screen and/or the GENERATOR screen. Refer to Section 4, "Troubleshooting", if no information appears.

3 Configuring the WhisperPower Touch Display

As shipped from the factory, the WhisperPower Touch Displays don't require any special configuration and will work with all WhisperPower generators in combination with one or more WPC's. Configurations with more than one WhisperPower display is possible, for these special configurations please contact WhisperPower.

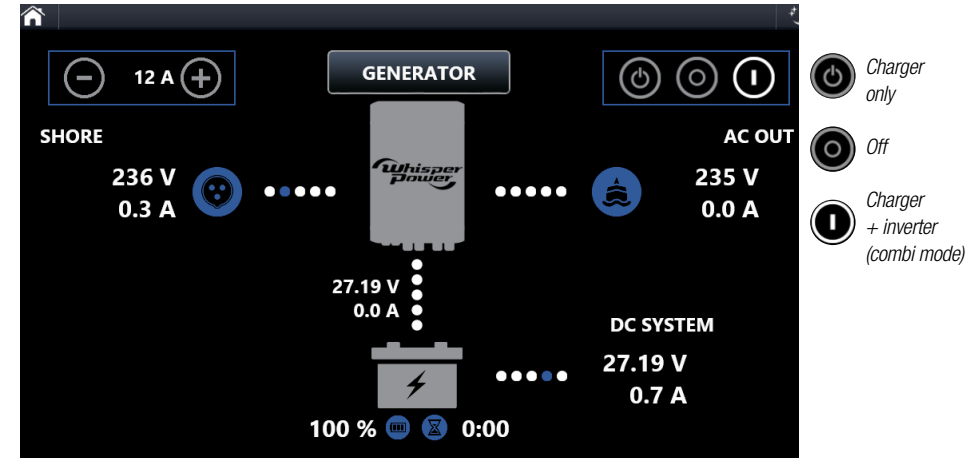
3.2 WhisperPower Touch Display screens

3.2.1 Main screen



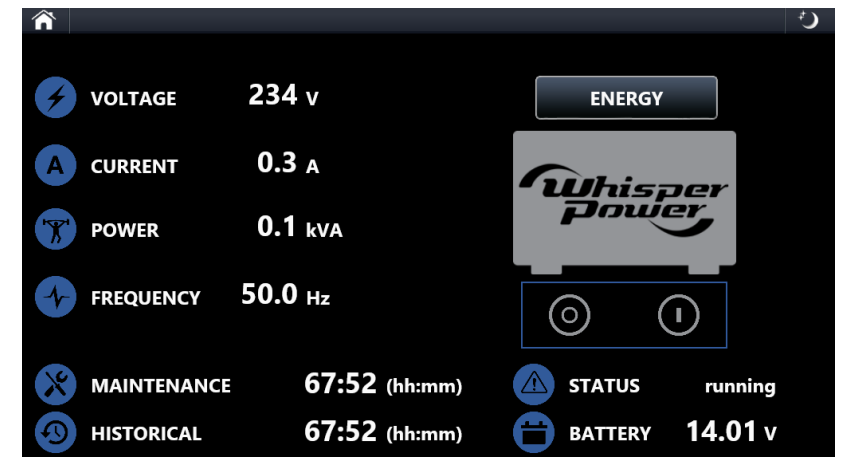
On the Main screen buttons are provided to enter the Energy, Generator and Settings screens.

3.2.2 ENERGY screen *↓ To set the current limit*



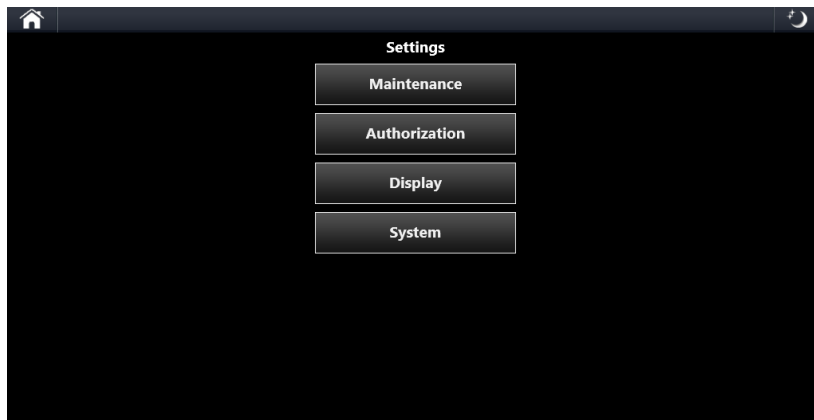
On the Energy screen the WPC status is shown. Input and output voltage and current, battery voltage and current of the shunt and WPC (optional), charge state and remaining time of the battery. The WPC can be turned on and off and also set in charge only mode. The current limit can also be set.

3.2.3 GENERATOR screen



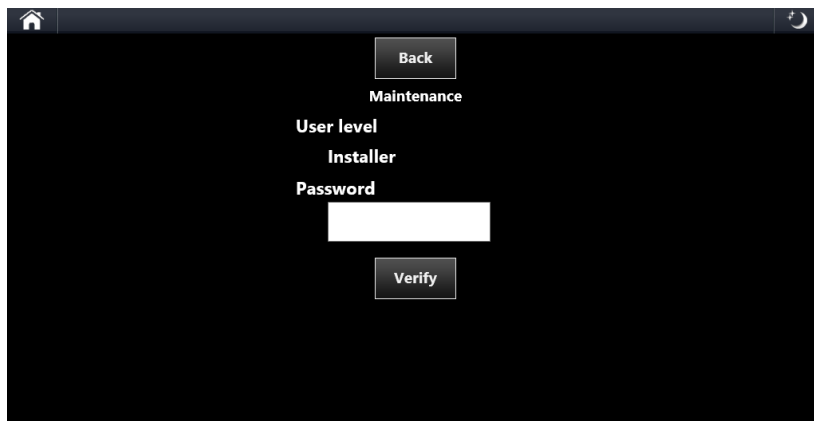
On the Generator screen the generator status is shown. The generator can be turned on and off. The output voltage, current, power and frequency is shown together with the historical and maintenance runtimes. Further the starter battery voltage is shown.

3.2.4 SETTINGS screen



On the Settings screen the in user mode buttons are shown to access the Maintenance, Authorization, Display and System screens. After entering the appropriate Maintenance password the buttons Start Screen, Lock Brand, Energy Config, Generator Config, WPC Settings, BSP Settings and WP Genset Settings are unlocked. These screens are meant for setting the WhisperPower devices at installation time and are not meant for end users to avoid damage to the equipment.

3.2.5 Maintenance screen (= pass word setting screen)



On the Maintenance screen the User Level of the WPC can be set from User to Basic, Expert, Installer and Developer. These User Levels are protected by password to ensure proper setting of the WPC installation. The WPC, battery pack and/or shunt can be damaged due to improper settings.

USER LEVEL	PASSWORD
User	
Basic	0000
Expert	1234
Installer level 1	8051

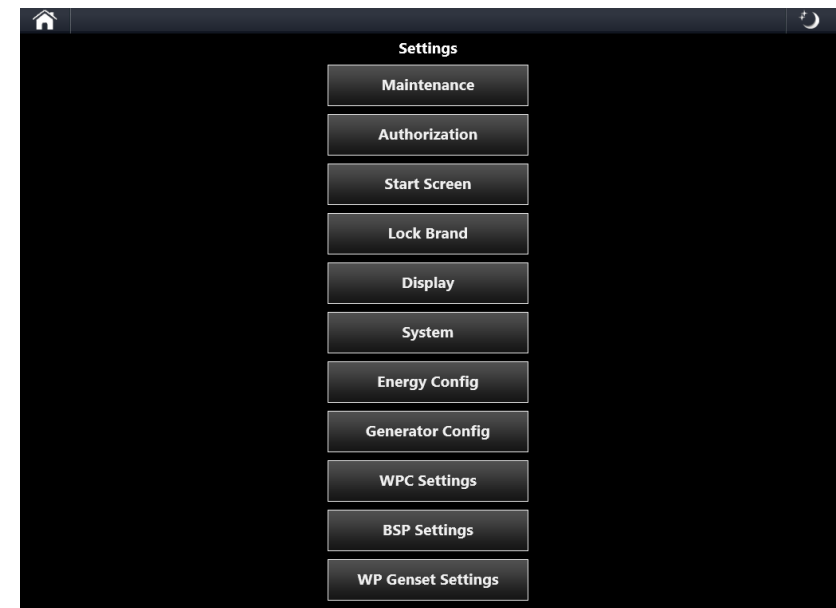


Extra warning: Improper settings can make the installation inoperable and/or damage the installation.

To go back to User Level 'User' : enter nothing in the text box and press 'Verify'.

Once user level is set, you need to go back to the main menu for further actions

3.2.6 Settings screen in Installer mode



On the Settings screen in Installer mode all additional buttons are unlocked. For proper adjustment of the various parameters of the Energy Config, Generator Config, WPC Settings, BSP Settings and WP Genset Settings please refer to the appropriate manuals of the WPC and/or the Generator. Setting wrong values can make the installation inoperable and/or can severely damage the installation.

3.2.7 Authorization screen

The screenshot shows the 'Authorization' screen with a dark background. At the top, there is a 'Back' button. Below it, the title 'Authorization' is centered. The 'Username' field contains the text 'admin'. The 'Password' field contains the text 'admin'. At the bottom, there is a 'Save' button.

On the Authorization screen a password can be set to access the WhisperPower Touch Display's webserver. After entering the IP address of the display a authorization display pops up, the default user is admin and the default password is also admin. With this setting the password can be changed.

3.2.8 Energy Config screen

The screenshot shows the 'Energy Config' screen with a dark background. At the top, there is a 'Back' button. Below it, the title 'Energy Config' is centered. The screen is divided into three columns: 'Charger/Inverter settings', '1st Shunt settings', and '2nd Shunt settings'.
 - Under 'Charger/Inverter settings': System (WhisperPower Center), Interface (RS232), System setup (SINGLE), Generator button (GENERATOR), Text AC In 1 (GENERATOR), Text AC Out 1 (AC OUT), Shunt Address (601), Show voltage (ON), Show current (ON).
 - Under '1st Shunt settings': System (WhisperPower Shunt), Interface (RS232), Text Shunt (DC SYSTEM).
 - Under '2nd Shunt settings': System (N/A).

On the Energy Config screen settings are provided for the WPC and WPC-BSI (shunt) connections. For direct connection the option Interface has to be set to RS232, the connection to the WPC

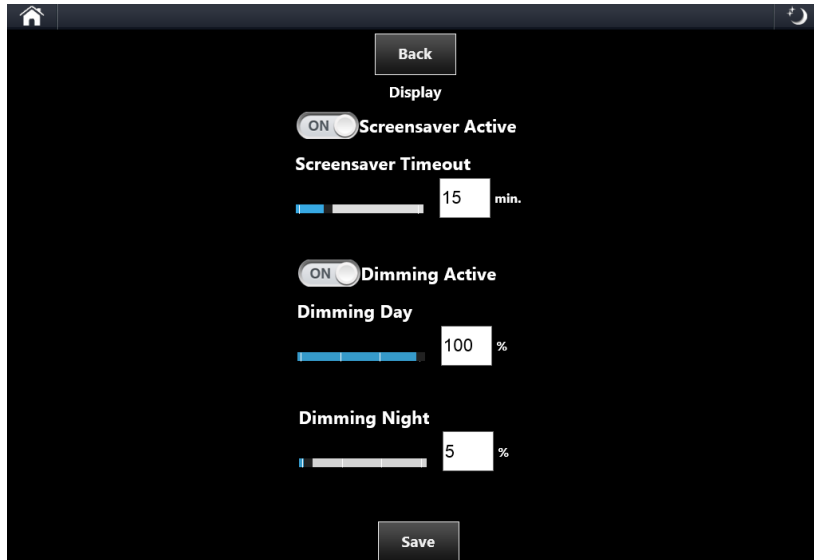
and WPC-BSI is made through the WPC-RS232-I interface which is not included (Order Number 60201084). For more complex configurations with more than one display and for maritime settings, contact WhisperPower for more information. The System Setup option is provided for the WPC configuration, SINGLE for one WPC, PARALLEL for more than one WPC's in a parallel configuration and 3-PHASE for 3 WPC's in a 3-phase configuration.

3.2.9 Generator Config screen

The screenshot shows the 'Generator Config' screen with a dark background. At the top, there is a 'Back' button. Below it, the title 'Generator Config' is centered. The screen contains the following settings:
 - System: WhisperPower (dropdown)
 - Interface: RS485 (dropdown)
 - Energy Button: ENERGY (text field)
 - AC From WPC: ON (toggle switch)

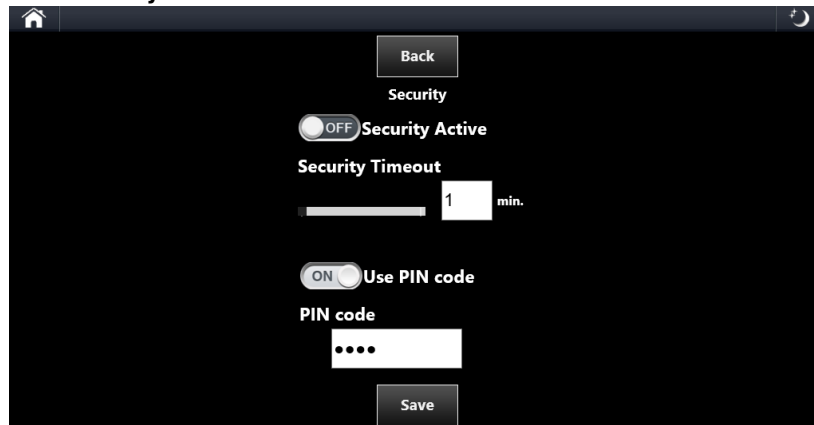
On the generator config screen settings are provided for the generator connection. For the WhisperPower Touch Display the only setting for system is WhisperPower. For a direct connection to the generator DDC interface has to be set to RS485. A second option NMEA2000 is provided for more complex configurations with more than one display and for maritime settings, contact WhisperPower for more information. The Energy Button option is provided to change the text on the Energy Button. The option 'AC from WPC' is provided for generators without a voltage measuring coil, the output voltage/current/power and frequency are measured by the WPC in this case.

3.2.10 Display screen



On the Display screen settings are provided for the screensaver and the dimming of the screen. The screensaver can be turned on and off and a screensaver timeout can be set. The dimming can be set on and off and a dimming level can be set for day and night conditions.

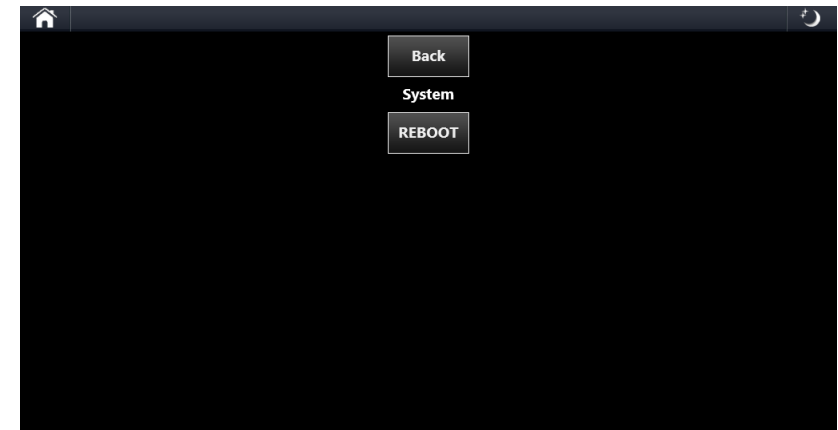
3.2.11 Security screen



On the Security screen settings are provided to set security active or inactive. A timeout can be set

when the display is entering the secure mode. If the option Use PIN code is turned on a password has to be entered to return from security mode.

3.2.12 System screen



On the system screen a button is provided to reboot the WhisperPower Touch Display.

4. Auto starting the generator

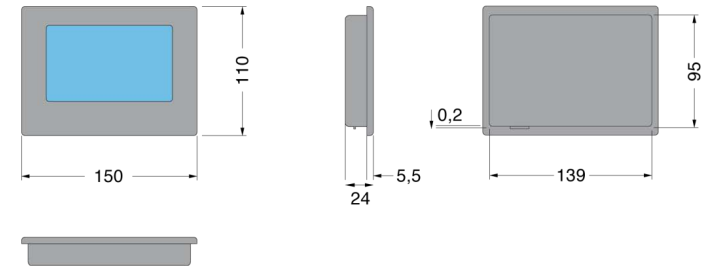
The WhisperPower Touch Display reads the status of the AUX1 relay of the WPC to automatically start and stop the generator. No physical connection is needed to use this function. Set the WPC settings for the generator start function in such a way that the AUX1 relay is activated by Battery Voltage, Inverter Power Level and/or State Of Charge (SOC). Set the WPC settings for the generator stop function in such a way that the AUX1 relay is deactivated by Battery Voltage, Power Level, State of Charge or Battery in status Float. Refer to the WPC manual for more information about these settings. The values can be set in the WPC Settings screen which is available in the 'Installer' User Level.

5. Troubleshooting

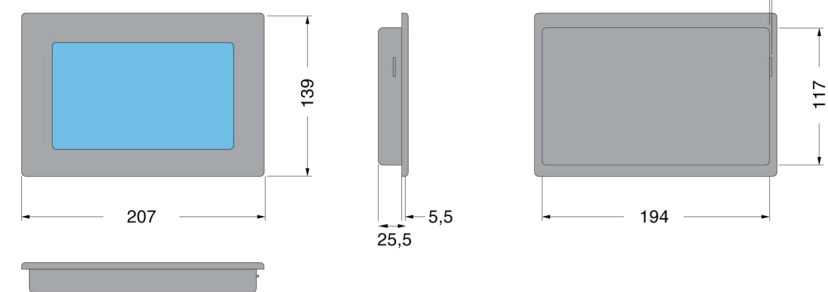
SYMPTOM	TROUBLESHOOTING PROCEDURE
Screen doesn't turn on	Check the connections to the WhisperPower Touch Display. Ensure that power is supplied to the 6-42V DC connection.
No WPC data	Check the RS232 connection from the WPC-RS232-I interface to the WhisperPower Touch Display.
No Generator data	Check the RS485 connection from the generator to the WhisperPower Touch Display.
FAILURE CODE	PROBLEM
COMMUNICATION	Communication error between the WhisperPower Touch Display and the generator, check cables.
LOW BAT1	BAT1 Starter battery voltage (BAT1) too low
ALTERNATOR	No battery charging voltage
EXHAUST TEMP	Exhaust temperature is too high (marine generators only)
WATER TEMP	Coolant temperature is too high
OIL PRESSURE	Oil pressure failure. Too high is generator is not running. Too low when generator is running.
AC-1 VOLTAGE AC-2 VOLTAGE AC-3 VOLTAGE	Generator AC output voltage is out of range (phase 1, 2 or 3) (125V / 253V, depending on the nominal output voltage)
HIGH CURRENT	Generator is in overload
FREQUENCY	Output frequency of the generator is 55Hz (50Hz models) or 65Hz (60Hz models)

6. Dimensions

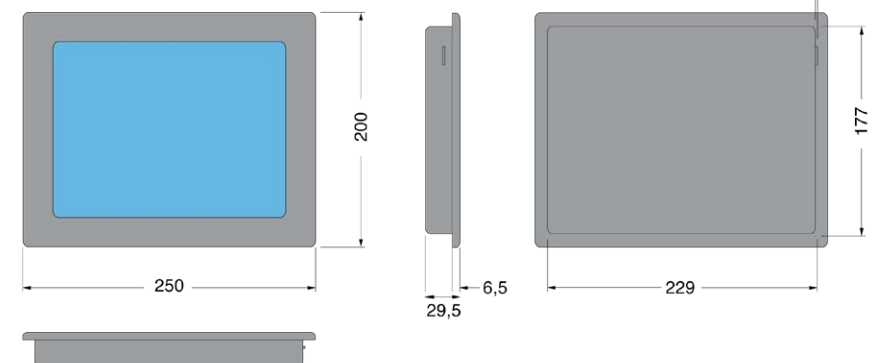
WP 5.0



WP 7.0



WP 10



7. Technical Specifications

As WhisperPower is constantly improving its products, all specifications are subject to change without notice

Electrical

PARAMETER	VALUE	COMMENT
Operating Voltage	6 to 42 Volts	
Power Consumption	100 to 240 mA	

Mechanical

PARAMETER	VALUE	COMMENT
Size	8.26" x 3.15" x 1.82" (210.0mm x 80.0mm x 46.2mm)	Outer dimensions
Weight	9.87 oz. (280.0 g)	

Environmental

PARAMETER	VALUE
Operating Temperature	-25°C to 55°C

8. Appendix

Wrong operation of the WhisperPower wpXXarm Touch Display may lead to hazardous situations. Therefore the availability of certain functions and accessibility to specific options can be restricted or extended according to the User level which can be set at the Maintenance screen. Instructions that are stated in this appendix may only be carried out by trained technical engineers!

9. Technical Support

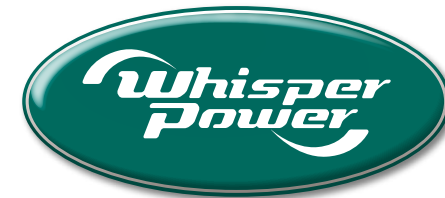
If you require technical support for WhisperPower products, you can reach us in any of the following ways:

Telephone: +31 (0) 512 571 550

E-mail: info@whisperpower.com

World Wide Web: www.whisperpower.com

Mail: WhisperPower, Kelvinlaan 82, 9207 JB Drachten, The Netherlands



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